Receipt date: 06/20/2006

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# 37 CFR 1.7(c) FILING RECEIPT AND TRANSMITTAL LETTER WITH AUTHORIZATION TO CHARGE DEPOSIT ACCOUNT

Neifeld Docket No.: OSEMDB30UPCTUS

US/PCT Application/Patent No.: 10/581,316

**Priority Data:** 

Inventor:BRADDOCK

Title: High Temperature Vacuum Evaporation Apparatus

Client Ref::

US/PCT File/Issue Date: 6/2/2006

USPTO Confirmation No.:

# THE FOLLOWING HAS BEEN RECEIVED IN THE U.S. PATENT OFFICE ON THE DATE STAMPED HEREON:

37 CFR 1.7(c) Filing Receipt and Transmittal Letter with Authorization to Charge Deposit Account (in duplicate)

37 CFR 1.97 Information Disclosure Statement and Authorization to Charge Deposit Account (in duplicate)

37 CFR 1.98(A)(1) Reference Citation Listing References U-001 - U-067, P-001 - P-005, F-001 - F-007, and O-001 - O-025 (8 pages)

Copies of References F-001 - F-007 and O-001 - O-025

The Commissioner is hereby authorized to charge any fees which may be required, or credit any overpayment, to Deposit Account Number 50-2106. A duplicate copy of this sheet is enclosed.

Richard A. Neifeld

Respectfully Sub

Registration No.35,299

Attorney of Record

PcLaw Matter

Lawyer

Amount

Explanation

Date Entered

Initials

Fees:

OSEM0001

**BTM** 

300

OSEMDB30UPCTUS firm charge for

preparing and filing an IDS.

6/19/2006

**BTM** 

Fees:

Disbursements: PcLaw Matter

G/L Account Amount

Explanation

Date Entered

Initials

Printed: September 30, 2005 (1:31pm)

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#### IN THE UNITED SPATES PATENT AND TRADEMARK OFFICE

IN RE APPLICATION OF: Braddock

INT APP. NO: 10/581,316

FILED: 6/2/2006

FOR: High Temperature Vacuum Evaporation Apparatus

GAU: Unknown

EXAMINER: Unknown

PTO CONFIRMATION NO. Unknown

## 37 CFR 1.97 INFORMATION DISCLOSURE STATEMENT

ASSISTANT COMMISSIONER FOR PATENTS ALEXANDRIA, VA 22313

SIR:

Applicant(s) wish to disclose the following information.

R	E	F	E	R	Е	N	С	ES	
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X	The applicant(s) wish to make of record the references listed on the attached PTO-1449. Copies of the listed references are being submitted herewith or, were submitted in the parent or grandparent application, where required, as were either statements of relevancy or any readily available English translations of pertinent portions of any non-English language references, or cited by the examiner.
	A check is attached in the amount required under 37 CFR §1.17(p).
REL.	ATED CASES
	Attached is a list of applicant's pending application(s) or issued patent(s) which may be related to the present application.  A copy of the patent(s) is attached along with PTO 1449.
	A check is attached in the amount required under 37 CFR §1.17(p).
CER	TIFICATION
	Each item of information contained in this information disclosure statement was cited in a communication from a foreign patent office in a counterpart foreign application not more than three months prior to the filing of this statement.
	No item of information contained in this information disclosure statement was cited in a communication from a foreign patent office in a counterpart foreign application or, to the knowledge of the undersigned, having made reasonable inquiry, was known to any individual designated in 37 CFR §1.56(c) more than three months prior to the filing of this statement.
PET	TION  Applicant(s) hereby request consideration of the attached information. A check is attached in the amount of the Petition fee required under 37 CFR §1.17(p).

#### **DEPOSIT ACCOUNT**

Please charge any additional fees for the papers being filed herewith and for which no check is enclosed herewith, or credit any overpayment to deposit account number 50-2106. A duplicate copy of this sheet is enclosed.

31518

PATENT TRADEMARK OFFICE

Richard A. Neifeld Registration No. 35,299 Receipt date: 06/20/2006

JUN 2 0 2006

NEIFELD IP LAW REFERENCE FORM
LIST OF REFERENCES CITED BY THE APPLICANT

FIRST NAME

F

NEIFELD REF: OSEMDB30UPCTUS APPLICATION NO: 10/581,316

FIRST NAMED INVENTOR: Braddock

GROUP ART UNIT: Unknown

## LISTING OF UNITED STATES PATENTS

EXAMINER INITIALS	REFERENCE NUMBER (U SERIES)	PATENT NUMBER	ISSUE DATE	NAME OF PATENTEE OR APPLICANT	PAGE/LINE AND FIGURE/ELEMENT OF RELEVANT MATERIAL AND/OR IDENTIFICATION OF PRIORITY APPLICATION IN WHICH REFERENCE IS CITED
	U-1	3,950,273	4-1976	Jones	
_	U-2	4,404,265	9-1983	Manasevit	·
	U-3	4,410,902	10-1983	Malik	
	U-4	4,416,952	11-1983	Nishizawa et al.	
	U-5	4,561,915	12-1985	Mito	
	U-6	4,624,901	11-1986	Glass	
	U-7	4,671,777	6-1987	van Esdonk et al.	
	U-8	4,685,193	8-1987	Faria et al.	
	U-9	4,745,082	5-1988	Kwok	
	U-10	4,802,180	1-1989	Brandle, Jr. et al.	
	U-11	4,843,450	6-1989	Kirchner et al.	
	U-12	4,859,253	8-1989	Buchanan et al.	
	U-13	4,935,789	6-1990	Calviello	
	U-14	4,970,060	11-1990	Belt et al.	
	U-15	5,055,445	10-1991	Belt et al.	
	U-16	5,124,762	6-1992	Childs et al.	
	U-17	5,170,407	12-1992	Schubert et al.	
	U-18	5,270,798	12-1993	Pao et al.	
	U-19	5,323,053	6-1994	Luryi et al.	
	U-20	5,386,137	1-1995	Dell et al.	
	U-21	5,425,043	6-1995	Holonyak et al.	
	U-22	5,451,548	9-1995	Hunt et al.	
	U-23	5,491,712	2-1996	Lin et al.	
	U-24	5,550,089	8-1996	Dutta et al.	
Date:			Examiner's Si	gnature:	

FILING DATE: June 2, 2006

Receipt date: 06/20/2006

37 CFR 1.98(A)(1) Reference Citation

NEIFELD IP LAW REFERENCE FORM LIST OF REFERENCES CITED BY THE APPLICANT	NEIFELD REF: OSEMDB30UPCTUS	APPLICATION NO: 10/581,316			
(Rev: 5/14/2003)	FIRST NAMED INVENTOR: Braddock				
	FILING DATE: June 2, 2006	GROUP ART UNIT: Unknown			

# LISTING OF UNITED STATES PATENTS

EXAMINER INITIALS	REFERENCE NUMBER (U SERIES)	PATENT NUMBER	ISSUE DATE	NAME OF PATENTEE OR APPLICANT	PAGE/LINE AND FIGURE/ELEMENT OF RELEVANT MATERIAL AND/OR IDENTIFICATION OF PRIORITY APPLICATION IN WHICH REFERENCE IS CITED
	U-25	5,597,768	1-1997	Passlack et al.	
	U-26	5,640,751	6-1997	Faria	
	U-27	5,665,658	9-1997	Passlack	
	U-28	5,693,565	12-1997	Camilletti et al.	
	U-29	5,729,563	3-1998	Wang et al.	
	U-30	5,767,388	6-1998	Fleisher et al.	
	U-31	5,805,624	9-1998	Yang et al.	
	U-32	5,821,171	10-1998	Hong et al.	
	U-33	5,838,708	11-1998	Lin et al.	
	U-34	5,896,408	4-1999	Corzine et al.	
	U-35	5,930,611	7-1999	Okamoto	
	U-36	5,945,718	8-1999	Passlack et al.	
	U-37	5,953,362	9-1999	Pamulapati et al.	
	U-38	6,006,582	12-1999	Bhandari et al.	
	U-39	6,028,693	2-2000	Fork et al.	
	U-40	6,030,453	2-2000	Passlack et al.	
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· · · · · · · · · · · · · · · · · · ·	U-42	6,069,908	5-2000	Yuen et al.	
	U-43	6,071,780	6-2000	Okamoto et al.	
	U-44	6,094,295	7-2000	Passlack et al.	
	U-45	6,114,079	9-2000	Christian et al.	
	U-46	6,150,677	11-2000	Tanaka et al.	
	U-47	6,207,976	3-2001	Takahashi et al.	
	U-48	6,252,896	6-2001	Tan et al.	
Date:			Examiner's S	ignature:	

Receipt date: 06/20/2006

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	U-49	6,313,511	11-2001	Noguchi	
	U-50	6,347,049	2-2002	Childress et al.	
	U-51	6,445,015	9-2002	Braddock	
	U-52	6,451,711	9-2002	Braddock, IV	
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	U-55	4,916,498	4-1990	Berenz	
	U-56	6,121,153	9-2000	Kikkawa	
	U-57	6,347,104	2-2002	Dijaili et al.	
	U-58	5,900,653	5-1999	Suzuki et al.	
	U-59	5,739,557	4-1998	O'Neil et al.	
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	U-61	2,993,814	7/25/1961	Epprecht et al.	
	U-62	4,239,955	12/16/1980	Cho	
	U-63	4,553,022	11/12/1985	Columbo	
	U-64	4,810,526	3/7/1989	Ito et al.	
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	U-67	6,989,556	1/24/2006	Braddock, IV	
Date:			Examiner's S	ignature:	

NEIFELD IP LAW REFERENCE FORM LIST OF REFERENCES CITED BY THE APPLICANT	NEIFELD REF: OSEMDB30UPCTUS	APPLICATION NO: 10/581,316			
(Rev: 5/14/2003)	FIRST NAMED INVENTOR: Braddock				
	FILING DATE: June 2, 2006	GROUP ART UNIT: Unknown			

ISTING OF UNITED STATES PUBLISHED APPLICATIONS						
EXAMIN ER INITIALS	REFERENCE NUMBER (P SERIES)	PUBLICATIO N NUMBER	PUBLICATI ON DATE	NAME OF PATENTEE OR APPLICANT	PAGE/LINE AND FIGURE/ELEMENT OF RELEVANT MATERIAL AND/OR IDENTIFICATION OF PRIORITY APPLICATION IN WHICH REFERENCE CITED	
! 	P-1	2002/0024108	2/28/2002	Lucovsky et al.		
	P-2	2003/0137018	7/2003	Passlack et al.		
	P-3	2002/0113285	8/22/2002	Braddock		
	P-4	2004/0206979	10/21/2004	Braddock '	·	
	P-5	2004/0207029	10/21/2004	Braddock		
				·		
Date:			Examiner's Sign	nature:		

NEIFELD IP LAW REFERENCE FORM LIST OF REFERENCES CITED BY THE APPLICANT	NEIFELD REF: OSEMDB30UPCTUS	APPLICATION NO: 10/581,316			
(Rev: 5/14/2003)	FIRST NAMED INVENTOR: Braddock				
	FILING DATE: June 2, 2006	GROUP ART UNIT: Unknown			

# LISTING OF FOREIGN AND INTERNATIONAL PATENT DOCUMENTS

EXAMIN ER INITIALS	REFERENCE NUMBER (F SERIES)	PUBLICATI ON NUMBER	PUBLICATI ON DATE	COUNTR Y OR REGION	PAGE/LINE AND FIGURE/ELEMEN T OF RELEVANT MATERIAL	ENGLISH LANGUAGE TRANSLATION ATTACHED? (YES OR NO) AND/OR IDENTIFICATION OF PRIORITY APPLICATION IN WHICH REFERENCE IS CITED
	F-1	JP 8085873 A	4-1998	Japan	Yoshizawa et al.	yes
	F-2	GB2047113A	11/26/1980	UK	Page 1, lines 15-21	
	F-3	WO 2005/048318	5/26/2005	PCT		
	F-4	WO 02/12598	2/14/2002	PCT		
	F-5	WO 02/15283	2/21/2002	PCT		
	F-6	WO 02/15285	2/21/2002	PCT		
	F-7	WO 02/15233	2/21/2002	PCT		
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				-		
Date:			Examiner's Si	gnature:		

NEIFELD IP LAW REFERENCE FORM LIST OF REFERENCES CITED BY THE APPLICANT	NEIFELD REF: OSEMDB30UPCTUS	APPLICATION NO: 10/581,316		
(Rev: 5/14/2003)	FIRST NAMED INVENTOR: Braddock			
	FILING DATE: June 2, 2006	GROUP ART UNIT: Unknown		

# LISTING OF NON PATENT LITERATURE

	3 OI 11011	TAIRINI	LITERATURE	
EXAMIN ER INITIALS	REFERENC E NUMBER (O Series)	PUBLICATI ON DATE	INCLUDE IN SEQUENCE: Name of first author (in CAPITAL LETTERS), Title in quotation marks, name of publication, date or publication, page numbers, publisher, city of publication, and country of publication	ENGLISH LANGUAGE TRANSLATION ATTACHED? (YES OR NO) AND/OR OR IDENTIFICATION OF PRIORITY APPLICATION IN WHICH REFERENCE IS CITED
	O-1	1994	"1995-1996 Alfa AESAR Catalog," 1994, page 1244, Johnson Matthey Catalog Company, Inc., Ward Hill, MA, US.	
	O-2	6-2001	VURGAFTMAN et al., "Band Parameters for III-V Semiconductors and Their Alloys," J. Appl. Phys. PP 5816-5875 (June 1, 2001).	
	O-3	2003	"Gallium Oxide on Gallium Arsenide: Atomic Structure, Materials, and Devices," Chapter 12, either published or scheduled for publication in "Gallium Oxide on Gallium Arsenide: Atomic Structure, Materials, and Devices," in III-IV Semiconductor Heterostructures: Physics and Devices, edited by W.Z. Cai, Transworld Research Publisher, Kerala, India (2003).	
	0-4	7-1996	PASSLACK et al., "Thermodynamic and photochemical stability of low interface state density Ga2O3-GaAs structures fabricated by in-situ molecular beam epitaxy", Applied Physics Letters, Vol 69, No 3, pps 302-304, 15 July 1996.	
	O-5	6-1997	PASSLACK et al., "Recombination velocity at oxide-GaAs interfaces fabricated by in-situ molecular beam epitaxy", Applied Physics Letters, Volume 68, Number 25, pages 3605-3607, 17 June 1997.	
	O-6	2-1996	PASSLACK et al., "Quasistatic and high frequency capacitance-voltage characterization of Ga2O3-GaAs structures fabricated by in-situ molecular beam epitaxy", Applied Physics Letters, Volume 68, Number 8, pages 1099-1101, 19 February 1996.	
	O-7	8-1997	UEDA et al., "Anisotropy of electrical and optical properties in B-Ga2O3 single crystals", Applied Physics Letters, Volume 71, Number 7, Pages 933-935, 18 August 1997.	
	L	<u> </u>		

	Examiner's Signature:
Date:	Examiner's Signature:

NEIFELD IP LAW REFERENCE FORM LIST OF REFERENCES CITED BY THE APPLICANT	NEIFELD REF: OSEMDB30UPCTUS	APPLICATION NO: 10/581,316
(Rev: 5/14/2003)	FIRST NAMED INVENTOR: Braddock	
·	FILING DATE: June 2, 2006	GROUP ART UNIT: Unknown

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EXAMIN ER INITIALS	REFERENC E NUMBER (O Series)	PUBLICATI ON DATE	INCLUDE IN SEQUENCE: Name of first author (in CAPITAL LETTERS), Title in quotation marks, name of publication, date or publication, page numbers, publisher, city of publication, and country of publication	ENGLISH LANGUAGE TRANSLATION ATTACHED? (YES OR NO) AND/OR OR IDENTIFICATION OF PRIORITY APPLICATION IN WHICH REFERENCE IS CITED
	O-8	6-1997	UEDA et al., "Synthesis and control of conductivity of ultraviolet transmitting B-Ga2O3 single crystals", Applied Physics Letters, Volume 70, Number 26, pages 3561-3563, 30 June 1997.	
	O-9	2-2000	KHAN et al., "AlGaN/GaN Metal Oxide Semiconductor Heterostructure Field Effect Transistor", IEEE Electron Device Letters, Volume 21, Number 2, pages 63-65, Feb. 2000.	
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	O-12	1996	Passlack et al., "C-V and G-V Characterization of In-Situ Fabricated Ga2O3-GaAs Interfaces for Inversion/Accumulation Device and Surface Passivation Applications, Solid-State Electronics, Vol. 39, No. 8, pp. 1133-1136, 1996.	
	O-13	1996	Passlack et al., "GaAs Surface Passivation Using in-Situ Oxide Deposition," Applied Surface Science 104/105 (1996) 441-447.	
	O-14	June 1995	Passlack et al., "Infrared Microscopy Studies on High-Power InGaAs-GaAs-InGaP Lasers with Ga2O3 Facet Coatings," IEEEJournal of Selected Topics in Quantum Electronics, Vol. 1, No. 2, June 1995, pp. 110-116.	
	O-15	12/15/1995	Passlack et al., "Capacitance-Voltage and Current-Voltage Characterization of AlxGa1-xAs-GaAs Structures," J. Appl. Phys. 78 (12), December 15, 1995, pp. 7091-7098.	
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(Rev. 5/14/2003)	FIRST NAMED INVENTOR: Braddock	
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EXAMIN ER INITIALS	REFERENC E NUMBER (L Series)	PUBLICATI ON DATE	INCLUDE IN SEQUENCE: Name of first author (in CAPITAL LETTERS), Title in quotation marks, name of publication, date or publication, page numbers, publisher, city of publication, and country of publication	ENGLISH LANGUAGE TRANSLATION ATTACHED? (YES OR NO) AND/OR OR IDENTIFICATION OF PRIORITY APPLICATION IN WHICH REFERENCE IS CITED
	0-16	1997	Hong et al., "Novel Ga2O3(Gd2O3) Passivation Techniques to Product Low Dit Oxide-GaAs Interfaces," Journal of Crystal Growth 175/176 (1997), pp. 422-427.	
	0-17	May 1996	Hong et al., "Low Interface State Density Oxide-GaAs Structures Fabricated by in Situ Molecular Beam Epitaxy," J. Vac. Sci. Technol. B 14(3), May/Jun 1996, pp. 2297-2300.	
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	O-20	6/15/2005	International Search Report for PCT/US04/38235.	
	0-21	10/26/2005	International Search Report for PCT/US04/38582.	
	O-22	10/29/2001	International Search Report for PCT/US01/24263.	
	O-23	4/4/2002	International Search Report for PCT/US01/25150.	
	O-24	12/20/2001	International Search Report for PCT/US01/25259.	
	O-25	1/16/2002	International Search Report for PCT/US01/25161.	
Date:	Maureen G	ramaglia/	Examiner's Signature: 06/08/2009	1

Printed: June 19, 2006 (11:39am)